

What is claimed is:

1 1. A partial discharge-resistant wire enamel composition  
2 wherein at least one fine particle sol selected from the group of  
3 metal oxide fine particle sol and silicon oxide fine particle sol  
4 is dispersed, said wire enamel composition comprising 100 parts  
5 by weight of wire enamel resin and 3 to 100 parts by weight of at  
6 least one fine particle selected from a metal oxide fine particle  
7 and a silicon oxide fine particle.

1 2. The partial discharge-resistant wire enamel composition  
2 according to Claim 1 wherein the metal oxide fine particle sol and  
3 silicon oxide fine particle sol is transparent or opalescent colloid  
4 liquid containing a metal oxide fine particle or silicon oxide fine  
5 particle having an average particle size of 100 nm ( $100 \times 10^{-9}$  mm)  
6 or less in a dispersing medium having excellent compatibility with  
7 a wire enamel composition.

1 3. A partial discharge-resistant magnet wire obtained by coating  
2 and baking directly or through other coating layer on a conductor,  
3 a wire enamel composition wherein at least one fine partial sol  
4 selected from the group of metal oxide fine particle sol and silicon  
5 oxide fine particle sol is dispersed, said wire enamel composition  
6 comprising 100 parts by weight of wire enamel resin and 3 to 100  
7 parts by weight of at least one fine particle selected from the  
8 group of a metal oxide fine particle and a silicon oxide fine particle.

1 4. The partial discharge-resistant magnet wire according to Claim  
2 3 wherein the metal oxide fine particle sol and silicon oxide fine  
3 particle sol is transparent or opalescent colloid liquid containing  
4 a metal oxide fine particle or silicon oxide fine particle having

5 an average particle size of  $100\text{ nm}$  ( $100 \times 10^{-9}\text{ mm}$ ) or less in a dispersing  
6 medium having excellent compatibility with a wire enamel  
7 composition.

1 5. A partial discharge-resistant enameled wire obtained by  
2 providing a lubricant coating layer on the outer circumference of  
3 a coating layer produced by coating and baking directly or through  
4 other coating layer on a conductor a wire enamel composition wherein  
5 at least one fine particle sol selected from the group of metal  
6 oxide fine particle sol and silicon oxide fine particle sol is  
7 dispersed.